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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,781	08/17/2001	Sang-Ho Park	678-721 (P9889)	3651

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EXAMINER

GIBSON, ERIC M

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 09/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/931,781

**Applicant(s)**

PARK ET AL.

**Examiner**

Eric M Gibson

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 04 September 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 02/05/2002 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. Specifically, references JP 10-96644 and JP 10-96645 have not been considered (see attached copy of Paper No. 4). The provided copies are not of the references listed on the IDS and cited in the International Search Report. This is evidenced by: (1) the figures in the provided references are of chemical equations, and (2) the dates of the cited documents (14/04/**1998**) and the provided documents (14/04/**1989**) do not match.

### ***Drawings***

2. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Specification***

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-8, 10-18, 20-25, and 27-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Sulich et al. (US005875412A).

a. As per claim 1, Sulich teaches a vehicle navigation system that includes an information center (14, figure 5) having a map database (79, figure 6), for receiving information about a present vehicle position and a destination from a navigation terminal (column 7, lines 35-41), searching out an optimal route referring to the map database (80, figure 6), and generating route guidance data to the vehicle (column 7, line 65 - column 8, line 1). Sulich further teaches the navigation terminal inside the vehicle (18, figure 5), including calculating and transmitting the present position of the vehicle (column 7, lines 38-41), receiving the route guidance data (column 8, lines 1-3), and announcing a notification message about the node point (column 8, lines 4-7), and a

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wireless communication network for connecting the terminal to the information center (74, figure 5).

- b. As per claim 2, Sulich teaches displaying image data (column 8, lines 4-6).
- c. As per claim 3, Sulich teaches a mobile terminal for connecting to the wireless communication network (74, figure 5) and an ITS terminal (18, figure 5) having a GPS device (72, figure 5).
- d. As per claims 4-7, Sulich teaches using either the mobile terminal (figure 3, see also 74, figure 5) or the ITS terminal (figure 4, see also 18, figure 5) to announce route information and input information.
- e. As per claim 8, Sulich teaches that the information center takes into account traffic data in the calculation of the route (column 7, lines 28-30).
- f. As per claim 10, Sulich teaches including road attributes (column 7, line 30-31).
- g. As per claim 11, Sulich teaches the node points are intersections (i.e. "turn by turn", column 7, lines 59-62).
- h. As per claim 12, Sulich teaches a method of guiding a vehicle, including transmitting information about the present vehicle position and a destination from the navigation terminal to the information center wirelessly (column 7, lines 35-41), searching out an optimum route at the information center (80, figure 6), generating and transmitting route guidance data to the navigation terminal (column 7, line 65 - column 8, line 1), and announcing a notification message about the point by voice (column 8, lines 4-7).

- i. As per claim 13, Sulich teaches displaying image data (column 8, lines 4-6).
- j. As per claim 14, Sulich teaches that the information center takes into account traffic data in the calculation of the route (column 7, lines 28-30).
- k. As per claim 15, Sulich teaches including road attributes (column 7, line 30-31).
- l. As per claim 16, Sulich teaches the node points are intersections (i.e. "turn by turn", column 7, lines 59-62).
- m. As per claim 17, Sulich teaches requesting new route data when the vehicle strays from the optimum route (column 8, lines 11-29).
- n. As per claim 18, Sulich teaches a method of guiding a vehicle, including transmitting information about the present vehicle position and a destination from the navigation terminal to the information center wirelessly (column 7, lines 35-41), searching out an optimum route at the information center (80, figure 6), generating and transmitting route guidance data to the mobile terminal (74, figure 5) and from the mobile terminal to the ITS terminal (column 7, line 65 - column 8, line 1), and announcing a notification message about the point by voice (column 8, lines 4-7).
- o. As per claim 20, Sulich teaches displaying image data at the ITS terminal (column 8, lines 4-6).
- p. As per claim 21, Sulich teaches that the information center takes into account traffic data in the calculation of the route (column 7, lines 28-30).

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q. As per claim 22, Sulich teaches including road attributes (column 7, line 30-31).

r. As per claim 23, Sulich teaches the node points are intersections (i.e. "turn by turn", column 7, lines 59-62).

s. As per claim 24, Sulich teaches requesting new route data when the vehicle strays from the optimum route (column 8, lines 11-29).

t. As per claim 25, Sulich teaches a method of guiding a vehicle, including transmitting information about the present vehicle position and a destination from the navigation terminal to the information center wirelessly (column 7, lines 35-41), searching out an optimum route at the information center (80, figure 6), generating and transmitting route guidance data to the mobile terminal (74, figure 5) and from the mobile terminal to the ITS terminal (column 7, line 65 - column 8, line 1), and announcing a notification message about the point by voice (column 8, lines 4-7).

u. As per claim 27, Sulich teaches displaying image data at the ITS terminal (column 8, lines 4-6).

v. As per claim 28, Sulich teaches that the information center takes into account traffic data in the calculation of the route (column 7, lines 28-30).

w. As per claim 29, Sulich teaches including road attributes (column 7, line 30-31).

x. As per claim 30, Sulich teaches the node points are intersections (i.e. "turn by turn", column 7, lines 59-62).

y. As per claim 31, Sulich teaches requesting new route data when the vehicle strays from the optimum route (column 8, lines 11-29).

z. As per claim 32, Sulich teaches a mobile terminal comprising a navigation system that processes a call by bi-directional communication with a base station (column 8, lines 32-39), requests navigation information that satisfies a predetermined condition from an information center (column 4, lines 30-34), and downloads the information from the information center (column 7, line 65 - column 8, line 1).

aa. As per claim 33, in Sulich the information is transmitted to the ITS mounted in a moving object (vehicle).

bb. As per claim 34, Sulich teaches the predetermined condition includes a destination position for the vehicle to be guided (column 7, lines 35-38).

cc. As per claim 35, Sulich teaches that the information center includes a map database that provides navigation information by generating route guidance data according to the current position and destination of the moving object (see figure 6).

dd. As per claim 36, Sulich teaches a display for displaying the state of call processing (54, figure 3) and displaying route guidance information (30, figure 5).

ee. As per claim 37, Sulich teaches an input portion for acting as a user interface (48, figure 3 and 28, figure 5).

ff. As per claim 38, Sulich teaches a microprocessor (24, figure 5).

gg. As per claim 39, in Sulich the input portion is a "touch pad" or the equivalent in the art (keypad 48, figure 3; keyboard 28, figure 5).



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hh. As per claim 40, Sulich teaches a keypad that includes key assignment memory areas (50 and 52, figure 3) for assigning keys to the first mode (call processing) and the second mode (navigation).

ii. As per claim 41, Sulich teaches an input portion for acting as a user interface (28, figure 5) and a display for displaying route guidance information (30, figure 5).

jj. As per claim 42, Sulich teaches transitioning between a navigation mode and a voice call mode (50 and 52, figure 3).

kk. As per claim 43, Sulich teaches a user selection of vehicle position and destination in a navigation mode (column 7, lines 35-38).

ll. As per claims 44 and 46, menu keys are well known in the art of input devices.

mm. As per claims 45, 47 and 48, Sulich teaches a key dedicated to transitioning to the navigation mode (52, figure 3) to provide route guidance.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sulich in view of Fastenrath (US005889477A).

a. As per claim 9, Sulich teaches the invention as explained in the rejection of claim 1. Sulich further teaches a first server for generating traffic information (36, figure 5), a second server for searching out the optimum route (80, figure 6), and a third server for connecting to the wireless communication network (78, figure 5). While Sulich does provide for a traffic information database, there is no explicit teaching of the plurality of sensors installed on roads for collecting traffic information. There exist multiple methods of collecting traffic data in the prior art. These methods can range from stationary sensors installed in roads to mobile units installed in vehicles. One exemplary reference is Fastenrath '477, which teaches a plurality of sensors installed on roads (8, figure 1) that collect traffic information. It would have been obvious to one of ordinary skill in the art, at the time of invention, to collect traffic information for a traffic database, as taught in Sulich, by using sensors installed on the roads, as is a known method in the art, exemplified by the example of Fastenrath '477, in order to provide the actual data that makes up the database.

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6. Claims 19 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sulich in view of Ohmura et al. (US006125326A).

a. As per claims 19 and 26, Sulich teaches the invention as explained in the rejection of claims 18 and 25. Furthermore, Sulich teaches that the mobile terminal is equipped with a number display (see figure 3). However, there is no teaching in Sulich to provide for the mobile terminal to display image data. Ohmura teaches a mobile terminal similar to that contemplated by Sulich, wherein the mobile device also contains a display capable of displaying image data (see figure 5). This allows for greater portability of the received routing instructions in the navigation system. It would have been obvious to one of ordinary skill in the art, at the time of invention, to equip the mobile terminal of Sulich with the capability to display image data, in order to increase the portability of the received routing instructions, as taught in Ohmura.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pu et al. (US006292743B1) teaches a mobile navigation system. Leibold (US006178378B1) teaches a method for operating a navigation system for motor vehicles. Waizmann et al. (US005919246A) teaches target input for navigation system. Schuessler (US005818356A) teaches a method and device for guiding a vehicle as a function of the traffic situation. Matta et al. (US005808565A) teaches a GPS triggered automatic annunciator for vehicles. Kakiyara et al. (US005293163A) teaches a navigation apparatus for vehicles.

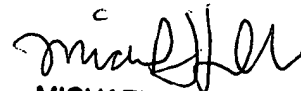
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M Gibson whose telephone number is (703) 306-4545. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on (703) 308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

EMG  
September 24, 2002

  
MICHAEL J. ZANELLI  
PRIMARY EXAMINER